

IN THE CLAIMS:

1. **(Original)** A tap for a liquid or gas cylinder, particularly of a vehicle, such as a trailer, comprising:

 a tap body having a longitudinal axis, a root end portion having a threaded section on an outer circumferential surface thereof, and a main body portion on one axial end of said threaded section, the other axial end of said threaded section adapted to be threaded into a tap aperture of a gas or liquid cylinder;

 an inversed seat primary valve located in said main body portion and having an annular seat surface and an annular sealing ring fluid tightly engageable with the seating surface, one of said seat surface and said sealing ring being mounted stationary in said valve body;

 a secondary check valve axially spaced from the other axial end of said threaded section, whereby said check valve is in the cylinder interior when the tap is fixed to the cylinder to prevent damage to the check valve by lateral shearing forces acting on the tap body externally of the cylinder, said secondary check valve having a check valve element spring biased towards a closed position;

 a stem axially movably mounted in said tap body, said stem extending through said one of said seat surface and said sealing ring, the other of said seat surface and said sealing ring being on said stem on a side of said one of said seat surface and said sealing ring that faces towards the root end portion, said stem having an extension portion prolongating said stem from said primary valve to extend into said root end portion; and

a stem actuator coupled to said stem to move said stem axially in one direction to open both of said valves and in an opposite direction to allow said check valve to close and to close said primary valve.

2. **(Original)** The tap of claim 1, wherein a reduced diameter section extends axially from the other axial end of said threaded section and a check valve seat surface is formed adjacent a free end of said reduced diameter section.

3. **(Withdrawn)** The tap of claim 2, wherein the check valve element comprises a ball element engageable with said seat surface, said ball element and the check valve biasing spring being retained in an apertured cup-shaped member secured to said reduced diameter section.

4. **(Original)** The tap of claim 2, wherein the check valve element comprises a piston engageable with said seat surface, said piston and the check valve biasing spring disposed about the piston being retained in an open-ended sleeve tube secured to said reduced diameter section.

5. **(Currently Amended)** The tap of claim ~~[[1]]~~ 4, wherein the check valve element is disposed within said reduced diameter section and is engageable with a seat surface formed intermediate the ends of the reduced diameter section.

6. **(Withdrawn)** The tap of claim 1, wherein a fluid flow passage is formed in the tap body about said stem, an internal thread being formed in a wall of said fluid flow passage in said root end portion axially between opposite ends of the threaded section thereof.

7. **(Original)** The tap of claim 1, wherein in the closed position of the primary valve the free end of the stem extension portion is spaced from the check valve

element so that when the stem is moved in said one direction the primary valve is opened first and when said stem is moved in said second direction the check valve is allowed to close first.

8. **(Currently Amended)** The tap of claim [[1]] 4, wherein the stem has the extension portion fixedly secured thereto.

9. **(Currently Amended)** The tap of claim [[1]] 4, wherein the stem has the extension portion integrally formed in one piece therewith.

10. **(Currently Amended)** A tap for a gas or liquid cylinder, comprising:
a tap body having a root end portion, said root end portion having a threaded section, a free end, and a reduced diameter section between said threaded section and said free end;

an elongated stem mounted in said tap body, said stem having a longitudinal axis;

an inverted seat primary valve provided in said tap body at a side of the root end portion opposite said reduced diameter section and said free end;

a secondary check valve ~~spring~~ biased to a closed position by a spring, said secondary check valve being mounted to said reduced diameter section;

wherein said stem is axially movable in a first direction towards said secondary check valve to open said primary valve and to open said secondary check valve against the biasing spring force to permit fluid flow through said tap body from an inlet to an outlet thereof, and in a second opposite direction to permit said secondary check valve to be closed by said biasing spring and to shut-off fluid flow from said inlet to said outlet of said tap body.

11. **(Original)** The tap of claim 10, wherein a check valve seat surface is formed adjacent a free end of said reduced diameter section.

12. **(Withdrawn)** The tap of claim 10, wherein said check valve comprises a ball element engageable with said seat surface, said ball element and the check valve biasing spring being retained in an apertured cup-shaped member secured to said reduced diameter section.

13. **(Original)** The tap of claim 10, wherein said check valve comprises a piston engageable with said seat surface, said piston and the check valve biasing spring disposed about the piston being retained in an open-ended sleeve tube secured to said reduced diameter section.

14. **(Currently Amended)** The tap of claim ~~[[10]]~~ 13, wherein the secondary check valve is disposed within said reduced diameter section; ~~and comprises a check valve member engageable with a~~ said seat surface is formed intermediate the ends of the reduced diameter section.

15. **(Withdrawn)** The tap of claim 9, wherein a fluid flow passage is formed in the tap body about said stem, an internal thread being formed in a wall of said fluid flow passage in said root end portion axially between opposite ends of the threaded section thereof.

16. **(Original)** The tap of claim 10, wherein in the closed position of the primary valve a check valve actuating end of the stem is spaced from the check valve element so that when the stem is moved in said one direction the primary valve is opened first and when said stem is moved in said second direction the check valve is allowed to close first.

17. (New) A tap for a gas or liquid cylinder, comprising:

a tap body having a root end portion, said root end portion having a free end and an exteriorly threaded section adapted to be engaged in a threaded opening of a gas or liquid cylinder;

an elongated valve actuating stem means mounted in said tap body, said stem means having a longitudinal axis;

a primary valve means provided in said tap body at a side of the root end portion opposite said free end; and

a secondary check valve means having a movable piston element urged by a biasing spring to a closed position in engagement with a check valve seat on the root end portion; said piston element being disposed in an open-ended sleeve tube retention member fixed to the root end portion of the tap body,

said stem means being axially movable in a first direction to open said primary valve means to permit fluid flow through said tap body from an inlet to an outlet thereof, and in a second opposite direction to close said primary valve means to shut-off fluid flow from said inlet to said outlet of said tap body, said stem means holding said secondary check valve means in an open position at least when said primary valve means is in an open position,

said root end portion having a reduced diameter section extending between the exteriorly threaded section and the free end of the root end portion, said reduced diameter section having a smaller external diameter than the exteriorly threaded section and the check valve seat being formed on said reduced diameter section, and said retention member having one end thereof fixed to said root end portion about said

reduced diameter section and being threaded at a free opposite end thereof to permit connection of a plunger tube thereto.

18. (New) A tap according to Claim 17, wherein the check valve seat is formed at the free end of the reduced diameter section.

19. (New) A tap according to Claim 17, wherein said biasing spring is disposed in a spring chamber and the fluid flow path through the check valve means bypasses said spring chamber.

20. (New) A tap according to Claim 17, wherein said piston element comprises a piston skirt, the outer diameter of which being smaller than the inner diameter of the sleeve tube, said piston skirt being guided for axial movement in the sleeve tube in an inner annular shoulder of the sleeve tube and by an outer annular flange of said piston skirt, that a check valve biasing spring is disposed about said piston skirt between said shoulder and said flange, and that said piston skirt has a hollow interior having a first closed end for engagement with the check valve seat, a second open end in communication with the sleeve tube interior, and at least one orifice through the piston skirt between the closed end and the flange of the piston skirt.

21. (New) A tap according to Claim 17, wherein the retention member thread for connection of a plunger tube thereto is an internal thread.

22. (New) A tap according to Claim 17, wherein said primary valve means is an inverted seat valve means, said stem means being slightly spaced from said piston element when said primary valve means is in a closed position so that said primary valve means is open first followed by opening of said secondary check valve means when said stem means is moved in a first direction, and the secondary check valve

means is allowed to close first followed by closing of the primary valve means when said stem means is moved in said second opposite direction.

23. (New) A tap according to Claim 17, wherein said retention member has a smaller external diameter than the minimum base diameter of the exteriorly threaded section.